INDEX TO VOLUME XLVI.

A.

Alger, F., on the identity of Beaumontite and Lincolnite with Heulandite, 233.
edition of Phillips' Mineralogy, 203.
Allen, Z., on the volume of Niagara River, 67.
Alps, Prof. Forbes' Travels in, reviewed, 172.
Dr. Grant's excursion in, 281.
American Geologists and Naturalists, Association of, sixth meeting, 404.
American Philosophical Society, Proceedings of, 204.
Amphide salts, existence of compound radicals in, 57.
Analytical Engine, Babbage's, 205.
Andrews, Dr., on the heat of combination, 397.
Arbroath, extraordinary tide at, 395.

B.

Babbage's Analytical Engine, 205.
Babington's Manual of British Botany, 198.
Bailey, J. W., on new fossil infusoria, 137.
notice of Ehrenberg's memoir on microscopic life, 297.
Baird, W. M. and S. F., catalogue of birds found near Carlisle, Penn., 261.
description of two new birds of the genus Tyrannula, 273.
Baldwinianæ, Darlington's Reliquiæ, 192
Bakerian lecture, Prof. Forbes's, 200.
Barometric compensation of the pendulum, 393.
Beaumontite identical with Heulandite, 233.
Beck, L. C., Mineralogy of New York reviewed, 25.
analysis of hydraulic limestones, 30.
on igneous action as exhibited in New York, 333.
Birds, catalogue of in the vicinity of Carlisle, Penn., 261.
two new, of the genus Tyrannula, 273.
Bischoff's Lehrbuch der Botanik, 196.
Bonaparte, L. L., on separating the oxides of cerium and didymium, 206.
Booth and Boyé's Encyclopedia of Chemistry, 202.
Borate of lime described, 377.
Boston Society of Natural History, Proceedings of, 203.
Botanische Zeitung, 200.
Braun, A., on North American Equiseta, 81.
on the Charæ of North America, 92.
British Association, proceedings of the thirteenth meeting, 388.
catalogue of stars, 389.
Brown, Mr., on an extraordinary tide at Arbroath, 395.
Buck's Index to De Candolle's Prodromus, 197.

C.

Calc spar of Rossie, N. Y., 33.
Cambridge, England, improvements in, 403.
Canal to connect Lakes Superior and Huron, 213.
Carbonates, Messrs. Rogers on the analysis of, 346.
Carbonic acid, solid, heat from, 215.
Carbonic acid gas and alkaline carbonates, decomposition of by the light of the sun, 398.
Carices, Kunze's Supplement of, 199.
Cerium and didymium, separation of their oxides, 206.
Charæ of North America, 92.
Chauvenet, W., solution to a case in sailing, 79.
Chemical Society of London, Memoirs of, 201.
Chemistry, Encyclopedia of, 202.
Chlorophyl, production of by yellow light, 1.
Chlorophyllite, description and analysis of, 377.
Chondrodite, its crystallographic characters, 381.
Chromatype, a new photographic process, 396.
Cider, American, analysis of, 256.
Columbic acid, Mr. Hayes on the A state of, 166.
Combination, heat of, 397.
Comet, third, of 1843, 210.
Comets, physical constitution of, 104.
formation of the tails of, 108.
Contoured maps, 394.
Couthouy, J. P., reply of Mr. Dana to his "vindication" against the charge of plagiarism, 129.
review of Mr. Dana's "reply," p. 1, appendix.
second reply of Mr. Dana, p. 10, appendix.

D.

Dana, J. D., review of Beck's Mineralogy of New York, 25.
his System of Mineralogy reviewed, 362.
reply to Mr. Couthouy's vindication against the charge of plagiarism, 129.
Mr. Couthouy's review of his "reply," p. 1, appendix.
second reply to Mr. Couthouy, p. 10, appendix.
Danaite, figure and angles of, 384.
Darlington's Reliquiæ Baldwinianæ, 192.
Day, variation in the length of, 344.
Deane, J., on the fossil footmarks of Turner's Falls, 73.
De Candolle prize for botanical monographs, 214.
Prodromus, Buek's Index to, 197.
Didymium and cerium, separation of their oxides, 206.
Dip and variation of the magnetic needle at Nantucket, 157.
Dircks, H., on the production and prevention of smoke, 400.
Dobson, P., on the iceberg theory of drift, 169.
Draper, J. W., description of the Tithonometer, 217.
action of the sun's light upon elementary substances, 390.
on decomposition of carbonic acid gas and the alkaline carbonates by the light of the sun, 398.
Drift, iceberg theory of, 169.

E.

Ehrenberg, C. G., memoir on microscopic life in North and South America, noticed, 297.
Electricity, effect of, 215.
Electro-magnetic meteorological register, 392.
Elevations in Wisconsin, 258.
Endlicher and Unger's Grandzuge der Botanik, 196.
Engelmann, G., on North American Equiseta, 81.
on plants of Illinois and Missouri, 94.
Equiseta, North American, 81.
Estrus, larvæ of in squirrels, 244.

F.

Footmarks, fossil, of Turner's Falls, 73.
Forbes, J. D., Bakerian lecture noticed, 200.
Travels in the Alps of Savoy, 172.
Forces, parallelogram of, 324.
Fossil footmarks of Turner's Falls, 73.
infusoria, new, 137.
Fossil remains in Indiana, 294.
geological position of, 320.
Fresenius' Gundriss der Botanik, 197.
Fulgurite, remarkable, 210.

G.

Gallic acid, new process for, 78.
Gardner, D. P., on the action of yellow light in producing the green color, and indigo light the movements of plants, 1.
Geological Reports of New York reviewed, 143.
Geyer, C. A., on plants of Illinois and Missouri, 94.
Gibbs, W., on the theory of compound salt radicals, 52.
Glaciers of the Alps, Dr. Grant's excursion among, 281.
phenomena of, 173–190.
Gold, large mass of, found in the Ural, 211.
Goniometer, reflecting, improvement in, 372.
Grant, H. A., excursion among the glaciers of the Alps, 281.
Gray, A., bibliographical notices, 192.
Guano, a valuable manure in Peru, 203.

H.

Haldeman, S. S., on zoological nomenclature, 18.
electrical phenomenon, 215.
Harlan, Dr. Richard, death of, 216.
Haydenite, description and analysis of, 379.
Hayes, A. A., reëxamination of microlite and pyrochlore, 158.
on the A state of columbic acid, 166.
description and analysis of Pickeringite, 360.
on borate of lime, 377.
Haymond, R., on fossil remains in Indiana, 294.
Heat from solid carbonic acid, 215.
crystallization by, 373.
of combination, 397.
Herschel, J. F. W., on a remarkable photographic process, 393.
Heulandite identical with Beaumontite and Lincolnite, 233.
Hildreth, S. P., meteorological journal at Marietta, Ohio, for 1843, 277.
Hitchcock, E., letter of Mr. Dobson to, 170.
analysis of oriental wines and American cider, 249.
Horse, anecdote of, 243.
Hudsonite, a new mineralogical species, 32.
Hunt, R., on chromatype, a new photographic process, 396.
influence of light on the growth of plants, 397.

Hydraulic limestones in New York, 29.
analysis of, 30.

I.

Iceberg theory of drift, 169.
Ice mountain in Wallingford, Vt., 331.
Igneous action, as exhibited in New York, 333.
Infusoria, new fossil, 137.
Iolite, analysis of, 383.
Iron, ores and manufacture of in New York, 25.
meteoric, from Otsego County, N. Y., 401.

J.

Jackson, C. T., analysis of Chlorophyllite, 378.
of Iolite, 383.
Jussieu's Cours Elémentaire de Botanique, 195.

K.

Kane, on the existence of compound radicals in the amphide salts, 57.
Kent, E. N., new process for gallic acid, 78.
Knox, T., on the quantities of rain in the S. W. of Ireland and in Suffolk, England, 394.
Kunze's Supplemente der Reidgräser, 199.
Kyanite, analysis of, 383.

L.

Lapham, I. A., on elevations in Wisconsin, 258.
Larcom, Capt., on contoured maps, 394.
Lathrop, S. P., on an ice mountain in Wallingford, Vt., 331.
Lead ores in New York, 28.
corroded by spring water, 398.
Ledebour's Flora Rossica, 198.
Light, elliptic polarization of, 390.
indigo, its agency on the movements of plants, 7.
yellow, action of in producing the green color, 1.
effects of on elementary substances, 390.
influence of on the growth of plants, 397.
of the sun, decomposition of carbonic acid gas and alkaline carbonates by, 398.
Lime, borate of, described, 377.
Limestones, hydraulic, in New York, 29.
Lincolnite identical with Heulandite, 235
Linsley, J. H., catalogue of reptiles of Connecticut, 37.
obituary of, 216.
Lloyd, Prof., on the regular variations of the earth's magnetic force, 391.
Lyell, C., on the geology of the valley of the St. Lawrence, 314.
Lyell, C., on the tertiary strata of Martha's Vineyard, 318.
geological position of the Mastodon and other fossil remains, 320.

M.

Magnetic force of the earth, variations of, 391.
needle, variation and dip of at Nantucket, 157.
Maps, contoured, 394.
Martha's Vineyard, tertiary strata of, 318.
Mastodon, geological position of its remains, 320.
Mather, W. W., on the variation in the length of the day, 344.
Megatherium, remains of in Indiana, 294.
Menabrea's Sketch of Babbage's Analytical Engine, 205.
Meteoric iron from Otsego Co., N.Y., 401.
Meteorological journal at Marietta, Ohio, for 1843, 277.
register, electro-magnetic, 392.
Microlite, analysis of, 159.
Microscopic life, Ehrenberg's memoir on, 297.
Mineralogy of New York, Beck's, reviewed, 25.
Dana's System of, reviewed, 362.
Mitchell, W., on the variation and dip of the magnetic needle at Nantucket, 157.
Monazite and Sillimanite, 207.
Mont Blanc, Dr. Grant's ascent of, 283.
Mustela pusilla, its habits, 241.

N.

New York, Beck's Mineralogy of, reviewed, 25.
Geological Reports, review of, 143.
Niagara River, volume of, 67.
Nomenclature, geological, 18.
numerical, 215.
Norton, W. A., on the formation of the tails of comets, 104.
Norton, J. P., analysis of Sillimanite, 382.
Numerical nomenclature, 215.

O.

Obituary of Dr. Richard Harlan, 216.
of Rev. James H. Linsley, 216.
of Col. John Trumbull, 216.
Ornithichnites, tracks of in the sandstone of Turner's Falls, 76.
Owen, D. D., review of New York geological reports, 143.

P.

Parallelogram of forces, Prof. Twining on, 324.
Pendulum, barometric compensation of, 393.
Percival, J. G., the original observer of the crescent-formed dykes of trap in Connecticut, 205.

Periclase, a new mineral, 212.
Phillips' Mineralogy, Alger's edition of, 203.
Phosphorus, isomeric acids of, 64.
Photographic process, remarkable, 393
chromatype, a new, 396
Pickeringite, description and analysis of, 360.
Pierce, E., on meteoric iron from Otsego County, N. Y., 402.
Plants, movements of, influenced by indigo light, 7.
of Illinois and Missouri, 94.
influence of light on their growth, 397.
Plummer, J. T., scraps in natural history, 236.
Podiscus Rogersi, a new infusorial form, 137.
Polarization of light, elliptic, 390.
Pyrochlore, analysis of, 163.

Q.

Quadrupeds about Richmond, Indiana, 244.
habits and anecdotes of, 237—243.

R.

Rain, quantities of in S. W. of Ireland and in Suffolk, England, 394.
Rattlesnake, habits of, 44.
Register, electro-magnetic meteorological, 392.
Reliquiæ Baldwinianæ, 192.
Reptiles of Connecticut, catalogue of, 37.
Robinson, Dr., on the barometric compensation of the pendulum, 393.
Rockwell, C. H., analysis of Kyanite, 383.
analysis of meteoric iron from Otsego County, N. Y., 402.
Rogers, R. E., on some new instruments and processes for the analysis of the carbonates, 346.
Rogers, W. B., on fossil infusoria, 141.
on the analysis of the carbonates, 346.
Rosse, Lord, notice of his large telescope, 208.

S.

Sailing, solution to a case in, 79.
Salt radicals, compound, theory of, 52.
Salts, amphide, existence of compound radicals in, 57.
Sault St. Marie, canal around, 213.
Sedgwick, A., letter to Prof Elton, 403.
Shrew, short-tailed, habits of, 327.
Silliman, B. Jr., review of Dana's Mineralogy, 362.
analysis of Haydenite, 379.
on meteoric iron from Otsego County, N. Y., 401.
Sillimanite and Monazite, 207.
Sillimanite, description and analysis of, 382.
Silurian fossils in Indiana, 236.
Smoke, production and prevention of, 400.
Sorex brevicaudatus, habits of, 237.
Squirrels, larvæ of Estrus in, 244.
Stars, British Association catalogue of, 389.
Stellite, chemical characters of, 379.
St. Lawrence, geology of the valley of, 314.
Sun's light effectual in decomposing carbonic acid gas and the alkaline carbonates, 398.

T.

Taconic system of New York, 145.
Telescope of the Earl of Rosse, 248.
Tertiary strata of Martha's Vineyard, 318.
Teschemacher, J. E., on the origin of Guano, 203.
Tide, extraordinary, at Arbroath, 395.
peculiar, at Mount's Bay, Cornwall, 396.
Tithonometer, description of, 217.
Trap, crescent-formed dykes of, in Connecticut, Dr. Percival the original observer, 205.
Triceratium spinosum, a new infusorial form, 139.
Trumbull, Col. John, decease of, 216.
Turner's Falls, fossil footmarks of, 73.
Twining, A. C., on the parallelogram of forces, 324.
Tyrannula flaviventris, a new ornithological species, 274.
minima, a new bird, 275.

U.

Ural, large mass of gold found in, 211.

V.

Variation and dip of the magnetic needle at Nantucket, 157.
of the earth's magnetic force, 391.
Vegetables, action of light upon, 1.
Verbena, species of, 99.

W.

Water, spring, corrosion of lead by, 398.
Weasel, habits of, 241.
West, Mr., on corrosion of lead by spring water passed through iron pipes, 398.
Wines of Palestine, Syria and Asia Minor, analysis of, 249.
Wisconsin, elevations in, 258.

Z.

Zircon, specimens of in New York, 36.
Zoological nomenclature, Mr. Haldeman on, 18.
Zygoceros Tuomeyi, a new infusorial form, 138.